



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/875,271	06/07/2001	Ah Hwee Tan	455392001200	4593
25227 7590 08/08/2007 MORRISON & FOERSTER LLP 1650 TYSONS BOULEVARD SUITE 400 MCLEAN, VA 22102			EXAMINER NGUYEN, CINDY	
			ART UNIT 2161	PAPER NUMBER
			MAIL DATE 08/08/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

09/875,271

**Applicant(s)**

TAN, AH HWEE

**Examiner**

Cindy Nguyen

**Art Unit**

2161

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2-12, 14-17, 19-22, 28-41, 43-45 and 47-49 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-12, 14-17, 19-22, 28-41, 43-45 and 47-49 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

This is response to amendment filed 05/14/07.

Applicant's arguments, see remark, filed 05/14/07 have been fully considered and are persuasive. The allowance of claims 2-17, 19-49 has been withdrawn.

#### **1. Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-12, 14-17, 19-22, 28-41, 43-45 and 47-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vu et al. (US 6369427) (hereafter Vu) in view of Sun et al. (US 6272250) (hereafter Sun).

Regarding claims 19 and 47, Vu discloses: a method of organizing information into a plurality of classes or clusters with a user-configurable information clustering system (i.e., document subsets 102a and 102b should be organized in fig. 1(c) by classification trees 103a and 103b of moderate depths and breadths for efficient navigation, col. 4, lines 8-10, Vu), the method using a processor executing instructions stored in a memory, the method and system comprising:

a) grouping units of information into clusters based on similarities to create a cluster structure (i.e., document subsets 102a and 102b should be organized in fig. 1 (

Art Unit: 2161

c) by classification trees 103a and 103b of moderate depths and breadths for efficient navigation, col. 4, lines 8-10, Vu); and

modifying said cluster structure by a user according to user knowledge and preferences (i.e., other examples of preferences that can be used to customize construction of the navigation tree include access frequency, multiple classifications, and user-provided classifications... personalized navigation trees 906 and 907, according to each user's access pattern and preferences and the characteristics of the user's document collection, col. 4, lines 33-45, Vu).

In addition, Vu disclose: a user interface (col. 4, lines 1-2, Vu), to provide for viewing and manipulating said cluster structure (901, fig. 9, Vu);

A knowledge base for storing said cluster structure (i.e., Library of Congress classification which have deep classification trees for indexing a large amounts of document, col. 4, lines 21-24, Vu), wherein said units of information are grouped into classes or clusters based on a similarity function (i.e., classification for a document with the keywords "sports", "car", "import" and "acura"..., col. 4, lines 56-67, Vu).

However, Vu didn't disclose: said classes or clusters have a coarseness which is controlled by a baseline vigilance parameter. On the other hand, Sun discloses: said classes or clusters have a coarseness which is controlled by a baseline vigilance parameter (i.e., a self-organizing control for allocating data into clusters, a vigilance parameter, also referred to herein as a vigilance value, is used, a vigilance test is performed at step 38 if the minimum Euclidean distance is not less than the vigilance value than a new cluster and becomes the initial prototype vector for such new cluster,

Art Unit: 2161

col. 4, lines 56-67, Sun). Thus, at the time invention was made, it would have been obvious to a person of ordinary skill in the art to include classes or clusters have a coarseness which is controlled by a baseline vigilance parameter in the system of Vu as taught by Sun. The motivation being to enable a method using a vigilance parameter determines how may clusters are derived and how wide a range of colors are included in cluster, col. 2, lines 20-25, Sun.

Regarding claims 20 and 48, most of the limitations of these claims have been noted in the rejection of claims 19 and 47 above, respectively. In addition, Vu/Sun discloses: indicating by a user a preference for a lower baseline vigilance parameter by selecting at least one unit of information from each of at least two clusters wherein the selected units of information are deemed by the user to be similar to each other (a parameter called an attentive vigilance parameter determines how fine the categories are to be, if vigilance decreases due to environmental feedback, then the system automatically searches for and learns finer recognition categories, col. 2, lines 9-15, Sun). Thus, at the time invention was made, it would have been obvious to a person of ordinary skill in the art to include indicating by a user a preference for a lower baseline vigilance parameter by selecting at least one unit of information from each of at least two clusters wherein the selected units of information are deemed by the user to be similar to each other in the system of Vu as taught by Sun. The motivation being to enable a method using a vigilance parameter determines how may clusters are derived and how wide a range of colors are included in cluster, col. 2, lines 20-25, Sun.

Regarding claims 21 and 49, most of the limitations of these claims have been noted in the rejection of claims 19 and 47 above, respectively. In addition, Sheppard/Sun discloses: indicating by a user a preference for a higher baseline vigilance parameter by selecting at least one unit of information from each of at least two clusters wherein the selected units of information are deemed by the user to be similar to each other (a parameter called an attentive vigilance parameter determines how fine the categories are to be, if vigilance increases due to environmental feedback, then the system automatically searches for and learns coarser recognition categories, col. 2, lines 9-15, Sun). Thus, at the time invention was made, it would have been obvious to a person of ordinary skill in the art to include indicating by a user a preference for a higher baseline vigilance parameter by selecting at least one unit of information from each of at least two clusters wherein the selected units of information are deemed by the user to be similar to each other in the system of Vu as taught by Sun. The motivation being to enable a method using a vigilance parameter determines how many clusters are derived and how wide a range of colors are included in cluster, col. 2, lines 20-25, Sun.

Regarding claims 2 and 28, most of the limitations of these claims have been noted in the rejection of claims 19 and 47 above, respectively. In addition, Vu/Sun discloses: wherein said grouping units of information into clusters is carried out automatically to create a machine-generated cluster structure (i.e., in response to a

Art Unit: 2161

keyword query using the term "NEC" a commercial search engine returns twelve possible categories to which the related documents may belong..., col. 8, lines 54-65, Vu).

Regarding claims 3 and 29, most of the limitations of these claims have been noted in the rejection of claims 19 and 47 above, respectively. In addition, Vu/Sun discloses: wherein said modifying comprises creating at least one new information cluster defined by the user (i.e., preferences that can be used to customize construction of the navigation tree include access frequency, multiple classifications and user-provided classifications, col. 4, lines 33-37, Vu).

Regarding claims 4, 8, 30 and 35, most of the limitations of these claims have been noted in the rejection of claims 19, 3, 47 and 29 above, respectively. In addition, Vu/Sun discloses: wherein said modifying further comprises labeling at least one information cluster by the user using defined symbol (i.e., the tag of a node is a label in a path from the top level root node to the node into which the document is classified, col. 4, lines 63-65, and col. 6, lines 1-14, Vu).

Regarding claims 5, 9, 31 and 36, most of the limitations of these claims have been noted in the rejection of claims 19, 4, 47 and 30 above, respectively. In addition, Vu/Sun discloses: wherein said modifying further comprises merging of at least two clusters chosen by the user (col. 7, lines 37-50, Vu ).

Regarding claims 6, 10, 32 and 37, most of the limitations of these claims have been noted in the rejection of claims 19, 5, 47 and 31 above, respectively. In addition, Vu/Sun discloses: wherein said modifying further comprises splitting at least one cluster chosen by the user (col. 6, lines 15-30, Vu).

Regarding claims 7, 11, 33 and 38, most of the limitations of these claims have been noted in the rejection of claims 19, 6, 47 and 32 above, respectively. In addition, Vu/Sun discloses: wherein said modifying further comprises storing said cluster structure in a knowledge base (i.e., Library of Congress classification hierarchical structure, col. 4, lines 55-65, Vu).

Regarding claims 14 and 41, most of the limitations of these claims have been noted in the rejection of claims 19 and 47 above, respectively. In addition, Vu/Sun discloses: wherein said user-configurable information clustering system incorporates user knowledge and preferences for information clustering (col. 4, lines 18-45, Vu).

Regarding claims 15, all of the limitations of this claim have been noted in the rejection of claim 19 above. In addition, Vu/Sun discloses: wherein said user-configurable information clustering system further comprises a user interface to provide for viewing and manipulating said cluster structure (901, fig. 9, Vu).



Art Unit: 2161

Regarding claims 16 and 44, most of the limitations of these claims have been noted in the rejection of claims 19 and 47 above, respectively. In addition, Vu/Sun discloses: wherein each of said units of information is represented by an information vector (i.e., allocating input vectors into clusters is performed for each input vector..., col. 4, lines 48-52, Sun).

Regarding claims 17 and 45, most of the limitations of these claims have been noted in the rejection of claims 19 and 47 above, respectively. In addition, Sheppard/Sun discloses: wherein a user-preferred information grouping is represented by a preference vector (i.e., input vectors P are grouped into clusters, col. 4, lines 12-13, Sun).

Regarding claims 34 and 39, most of the limitations of these claims have been noted in the rejection of claims 33 and 47 above, respectively. In addition, Vu/Sun discloses: wherein said personalization module further comprises means for retrieving the cluster structure from said knowledge base (col. 5, lines 14-18, Vu).

Regarding claims 22, most of the limitations of this claim have been noted in the rejection of claim 19 above. In addition, Vu/Sun discloses: further comprising retrieving said cluster structure to initialize said user-configurable information clustering system prior to clustering new information (col. 5, lines 19-36, Vu ).

Art Unit: 2161

Regarding claims 43, most of the limitations of this claim have been noted in the rejection of claim 47 above. In addition, Vu/Sun discloses: wherein said user interface permits graphical visualization of said information clusters (col. 9, lines 59 to col. 10, lines 12, Vu)

Regarding claims 12, 40, most of the limitations of these claims have been noted in the rejection of claims 19, 47 above, respectively. In addition, Vu/Sun discloses: wherein said information comprises text, image, audio, video or any combination thereof (col. 9, lines 59 to col. 10, lines 12, Vu).

#### Contact information

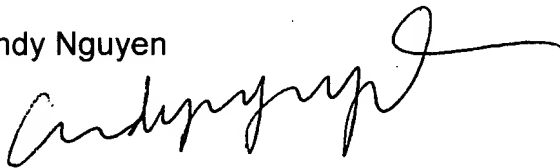
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cindy Nguyen whose telephone number is 571-272-4025. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Apu Mofiz can be reached on 571-272-4080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2161

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Cindy Nguyen

A handwritten signature in black ink, appearing to read 'Cindy Nguyen', with a stylized flourish at the end.